

Claim Listing

1-75 (canceled)

76. (Currently Amended) An array ~~of comprising~~ several different particle-attached ligands, wherein different particle-attached ligands are randomly distributed throughout the array, wherein different ligands are attached to different particles and said particles are encoded with a chemical or physical characteristic which fluoresces and that permits identification of the ligand or ligands attached thereto and, while fluorescing, permits distinguishing of individual particle-attached ligands including distinguishing particles having different particle-attached ligands attached thereto from each other, and wherein said particles are in a planar defined area on the surface of a substrate and wherein said particles are affixed to said substrate at a density greater than that achieved by bringing the particles within a distance from each other less than the diameter of the particles.

77. (Previously Presented) The array of claim 76 wherein the particles are affixed to the surface of the substrate.

78. (Previously Presented) The array of claim 76 wherein the ligands are proteins.

79. (Previously Presented) The array of claim 76 wherein the ligands are nucleic acids.

80. (canceled)

81. (Currently Amended) ~~An~~ The array of proteins according to claim 78, wherein different proteins bind to different cell types.

82. (Previously Presented) The array of proteins according to claim 78, wherein the proteins are monoclonal antibodies.

83. (Currently Amended) ~~An~~ The array of oligonucleotides according to claim 79 wherein the nucleic acids wherein the nucleic acids are oligonucleotides of DNA or RNA.

84. (Previously Presented) The array according to claim 76, wherein the substrate is a semiconductor.
85. (Previously Presented) The array according to claim 84 wherein the substrate is an electrode.
86. (Previously Presented) The array according to claim 76, wherein the chemical or physical characteristic is a chemical tag.
87. (canceled)
88. (Previously Presented) The array according to claim 77, wherein the particles are affixed to the substrate by chemical bonding.
89. (Previously Presented) The array according to claim 76, wherein the particles are exposed to liquid containing or suspected of containing an analyte.
90. (Previously Presented) The array according to claim 89, wherein the ligands are nucleic acids capable of hybridizing with one or more analytes contained within the liquid.
91. (Previously Presented) An article of manufacture composition comprising two or more of any of the arrays defined in claim 76 to 90.
92. (Previously Presented) The article of claim 91 wherein the location of each array on said substrate in combination with the chemical or physical characteristic indicates the types of ligands therein.
93. (Newly Added) The array according to claim 86, wherein the chemical tag is an oligonucleotide.
94. (Newly Added) The array of claim 76 wherein the density is such that the particles assume a hexagonal configuration.
95. (Newly Added) The array of claim 76 wherein the size of the particles is one to two microns.
96. (Newly Added) The array of claim 76 wherein the distances between particles are the same.